

Skills Worksheet

Vocabulary Review

In the space provided, write the letter of the description that best matches the term or phrase.

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| _____ 1. heredity | a. the alleles of a particular gene are different |
| _____ 2. genetics | b. the two alleles for a trait separate when gametes are formed |
| _____ 3. monohybrid cross | c. the alleles of different genes separate independently of one another during gamete formation |
| _____ 4. true-breeding | d. not expressed when the dominant form of the trait is present |
| _____ 5. P generation | e. passing of traits from parents to offspring |
| _____ 6. F ₁ generation | f. all the offspring display only one form of a particular trait |
| _____ 7. F ₂ generation | g. the expressed form of a trait |
| _____ 8. alleles | h. first two individuals crossed in a breeding experiment |
| _____ 9. dominant | i. physical appearance of a trait |
| _____ 10. recessive | j. a cross that considers one pair of contrasting traits |
| _____ 11. homozygous | k. offspring of the F ₁ generation |
| _____ 12. heterozygous | l. when the two alleles of a particular gene are the same |
| _____ 13. genotype | m. branch of biology that studies heredity |
| _____ 14. phenotype | n. different versions of a gene |
| _____ 15. law of segregation | o. offspring of the P generation |
| _____ 16. law of independent assortment | p. set of alleles that an individual has |

Vocabulary Review *continued*

Write the correct term from the list below in the space next to its definition.

codominance	pedigree	Punnett square
incomplete dominance	polygenic trait	sex-linked trait
multiple alleles	probability	test cross

- _____ 17. diagram that predicts the outcomes of a genetic cross
- _____ 18. cross of a homozygous recessive individual with an individual with a dominant phenotype of unknown genotype
- _____ 19. the likelihood that a specific event will occur
- _____ 20. a family history that shows how a trait is inherited
- _____ 21. trait whose allele is located on the X chromosome
- _____ 22. when several genes influence a trait
- _____ 23. when an individual displays a trait that is intermediate between the two parents
- _____ 24. two dominant alleles are expressed at the same time
- _____ 25. genes with three or more alleles

Section: Studying Heredity

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 1. In a pedigree, two normal parents produce a child with a genetic disorder. Based on this information, you know that the genetic disorder is caused by a
a. sex-linked allele. c. codominant allele.
b. dominant allele. d. recessive allele.
- _____ 2. The results of a test cross are some purple-flowering plants and some white-flowering plants. What is the genotype of the original purple-flowering pea plant?
a. PP
b. pp
c. Pp
d. There is not enough information.
- _____ 3. In a pedigree, a carrier would be represented as a(n)
a. normal individual.
b. individual who has a genetic disorder.
c. square.
d. circle.
- _____ 4. Which of the following is NOT true of most sex-linked traits?
a. located on the X chromosome c. usually recessive
b. located on autosomes d. usually seen in males

In the space provided, write the letter of the description that best matches the term or phrase.

- _____ 5. homozygous recessive a. result of a cross between the parents WW and ww
- _____ 6. $1 WW : 2 Ww : 1 ww$ b. result from a cross between the parents Ww and Ww
- _____ 7. Punnett square c. likelihood that an event will occur
- _____ 8. test cross d. used to determine the genotype of a purple-flowering pea plant
- _____ 9. probability e. diagram used to predict the outcome of a genetic cross
- _____ 10. all Ww offspring f. good choice of genotype for a test cross to find out the genotype of an individual who might be Ww or WW

Section: Complex Patterns of Heredity

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 1. When several genes influence a trait, the trait is said to be
 - a. polygenic.
 - b. incompletely dominant.
 - c. codominant.
 - d. completely dominant.

- _____ 2. Which of the following patterns of heredity can result in an intermediate trait, such as pink snapdragon flowers?
 - a. multiple alleles
 - b. incomplete dominance
 - c. codominance
 - d. sex-linked alleles

- _____ 3. Which of the following is responsible for the color of hydrangea flowers, which depends on the pH of the soil in which they are grown?
 - a. multiple alleles
 - b. incomplete dominance
 - c. codominance
 - d. environmental conditions

- _____ 4. Which of the following genetic disorders is caused by a sex-linked allele?
 - a. sickle cell anemia
 - b. hypercholesterolemia
 - c. hemophilia A
 - d. Tay-Sachs disease

In the space provided, write the letter of the description that best matches the term or phrase.

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| _____ 5. sickle cell anemia | a. determine the different ABO blood types |
| _____ 6. Huntington's disease | b. caused by a mutated allele that results in a defective hemoglobin protein |
| _____ 7. gene therapy | c. caused by a dominant allele located on an autosome |
| _____ 8. genetic counseling | d. changes in DNA that can cause genetic disorders |
| _____ 9. mutation | e. informing people about genetic problems they or their offspring might have |
| _____ 10. multiple alleles | f. replacing defective genes with copies of healthy genes, using gene technology |